

WHAT IS CLAIMED IS:

1. A method for screening a substance which interacts with a specific region of a biomolecule having an activity, to regulate the activity, said method comprising the following steps:

- Sub B1
- (a) a step of selecting a recombinant organism that interacts with the biomolecule, from a peptide library composed of a collection of recombinant organisms each presenting at least one of various peptides on its surface, with a proviso that the interaction is not an antigen-antibody reaction; and
 - (b) a step of selecting a substance inhibiting the interaction between the selected recombinant organism or a peptide presented by the recombinant organism and the biomolecule.

2. The method according to Claim 1, wherein the biomolecule is a protein, a nucleic acid or a sugar chain.

Sub B1

3. The method according to Claim 1, wherein the peptide library is composed of random peptide-presenting phage.

4. The method according to Claim 1, wherein the peptide library is composed of random peptide-presenting *Escherichia coli*.

5. The method according to Claim 1, wherein the peptides each have a length of 3 to 15 residues.

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6. The method according to Claim 1, wherein the selected recombinant organism or the peptide presented by the recombinant organism is labeled with a labeling substance.

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